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Richard Owen and the sea-serpent

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The well known naturalist, Richard Owen, had a career long engagement with monstrous creatures. In the 1830s he famously christened large fossil reptiles, Dinosauria. He investigated fossil marine reptiles as well as the giant moa. He also looked into the sea-serpents and sea monsters then drawing wide public attention.[1] He actively collected letters and analyzed correspondence on the topic, consulted with the admiralty on reports of Royal Navy encounters and sightings, and commented in the public press. He concluded that such reports were based upon misidentifications of whales and other large marine mammals, and not run-ins with mythological creatures. His work on the sea-serpent shows that rather than discount the idea out of hand, a number of high profile naturalists were intrigued by monsters and attempted to understand what they were. His work is key to understanding the skepticism over monsters held by modern mainstream science. This skepticism opened the field to later amateur investigators.[2]

Of sea-serpents and scholars

The notion of sea monsters has been of interest to natural philosophers since classical times.[3] Despite this long history of work, by the twentieth century the question of the existence of sea monsters and sea-serpents has been largely abandoned by mainstream scientists and relegated to the ranks of amateur investigators. Pursuit of such creatures has fallen under the banner of the contested field of cryptozoology rather than marine biology.[4] This lack of interest by conventional science can be traced back to the mid-nineteenth century, when attention from naturalists reached something of a peak as sightings by 'reputable' observers backed up by the stamps of magistrates gave hopes to some that the question would soon be resolved. A number of Victorian naturalists weighed in on whether sea monsters constituted actual organisms or simply legends.

The most well known and influential nineteenth century British naturalist involved with sea monsters was Richard Owen (1804–1892). Originally studying medicine, Owen transferred his enthusiasm to natural history. He did extensive work cataloging existing collections of biological and fossil organisms which gave him great insight into comparative anatomy.[5] Due to his public profile and political connections Owen was sent materials on sea monster encounters from civilians and the government. He kept track of these and collected original letters and newspaper items for study. His collection went back to the 1830s which he kept in a special scrapbook, and in which he wrote extensive marginal notes which give useful insight into his position.[6] It was not unusual in the nineteenth century for naturalists to make statements concerning sea-serpents.[7] Owen's first public comments on monstrous creatures of the sea came over one of the central encounters of the lore of the topic (Figures 1–3).

The Daedalus sighting

In the fall of 1848 the crew of the warship H.M.S. Daedalus, under Captain Peter M'Quhae, spotted a serpent-like creature pass their ship near the Cape of Good Hope. Several officers saw the creature and estimated it to be thirty or forty feet long, with a mouth full of 'jagged teeth', a mane like a horse and moving along at fifteen miles an hour. Upon arriving back in Plymouth Captain M'Quhae gave a detailed account to The Times which ran the story on the ninth of October.[8] After reading this account Richard Owen sent a letter to the Times. He argued against the serpentine nature of the creature and suggested the sailors had gotten their descriptions wrong. Having made more than his fair share of additions to the roster of living things, Owen said that 'I am far from insensible to the pleasure of the discovery of a new and rare animal'. The problem for him was that in all the discussions of sea-serpents there were only eyewitness reports, no physical remains: no bones, no skin and no fossils to support the existence of these types of creatures. He then added a bit of a jibe that 'a larger body of evidence from eye-witnesses might be got

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[1] While the terms sea-serpent and sea monster are often employed synonymously, they do indicate distinctions between creatures. The sea-serpent has characteristics of water-born snakes exhibiting no discernable limbs or fins with a relatively smooth and featureless body. Sea monsters generally do not have snake-like characteristics, but take on a number of different body forms.

[2] I'd like to thank the librarians at the Natural History Museum, London, for their help with the Owen papers. Also, thanks to the blind reviewers for their useful critique of my original manuscript, and to the Kean Foundation for providing research funds.

[3] There are a number of academic scientists in the early twenty-first century who investigate this subject, but because of the stigma of pseudoscience which often accompanies such work, tend to keep a low profile.

[4] An example of recent academic discussion of the nature of such creatures is C.G.M. Paxton, E. Knatterud and S.L. Hedley. 'Cetaceans, Sex and Sea Serpents: an analysis of the Egede accounts of a "most dreadful monster" seen off the coast of Greenland in 1734', *Archives of Natural History* 32:1 (2005):1–9.

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[5] The standard biography of Owen is Nicolaas A. Rupke, *Richard Owen: Victorian Naturalist* (Yale University Press, 1994). Rupke also examines Owen's work on sea-serpents.

[6] Richard Owen. "Notebook: Collection of Newspaper Cuttings Relating to the Alleged Appearance of the 'Sea-Serpent', OC36, Owen Papers, library, Natural History Museum. From here known as *Owen notebook*.

[7] Harriet Ritvo, 'Professional Scientists and Amateur Mermaids: Beating the Bounds in Nineteenth-Century Britain', *Victorian Literature and Culture* (1991):277–291. For a compendium of naturalist commentaries see, Bernard Heuvelmans, *In the Wake of the Sea-serpents* (New York: Hill and Wang, 1968).

[8] *The Times* (October 9, 1848).

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Figure 1. Richard Owen was an influential and well connected scientist with a number of zoological interests including sea-serpents.

Figure 2. Owen had a history of interest in larger than life organisms. In addition to naming the Dinosauria he studied the Giant Moa.

together in proof of ghosts than of the sea-serpent'.[9] Helped along by an Illustrated London News story featuring an artist's conception of the creature, the Daedalus incident caught the popular imagination.[10] Here was a sighting by a reputable officer of Her Majesty's navy and a commentary by the foremost scientist of the day. The Prince Consort, his interest piqued, asked Owen what he thought the Daedalus creature was. The naturalist replied that he thought what was seen likely a misidentification of a large sea lion or seal. A bit disappointed, the Prince humorously dubbed Owen the 'sea-serpent killer'.[11]

The story gained Charles Darwin's interest as well. Still on friendly terms with Owen, Darwin read the various articles in the press. Like Owen, Darwin did not believe sea-serpents genuine creatures. His sea voyaging on the Beagle gave him a certain familiarity with ocean life. Though he had seen many unusual and fascinating sea creatures, he never saw anything remotely like a sea monster. After reading Captain M'Quhae's report, Darwin wrote to Owen that 'I never heard anything so astounding as the log-book of your H.M.S. Diddleus' [sic].[12]

In February, 1849, on the heels of the Daedalus affair, Owen was shown the remains of another monster, this one acquired by the Duke of Northumberland. After examining it Owen declared it an example of the rare Ribbon Fish. Building upon his growing reputation as a deflater of sea monsters, the magazine Punch ran a satirical poem which read in part, 'who killed the sea-serpent? "I", said Professor Owen'.[13]

More sightings followed. In 1857 the British merchant ship Castilan reported observing a sea-serpent very much like the Daedalus monster off St. Helens Island in the South Atlantic. Owen rejected this sighting as a misidentification as well. An irate correspondent to the Cape Argus replied that 'the marine monster does exist, in the face of the deliberately recorded opinion of the greatest living zoologist Professor Owen'.[14] The captain of the Castilan, George Henry Harrington, upset at Owen's dismissal of his report wanted to meet Owen to convince him of the veracity of the event. Then an encounter with yet another Daedalus-like sea monster near Bermuda in 1860 resulted in the supposed capture of the creature, or at least parts of it. 'Three separate spines of this fish were sent over to the Board of Trade, and thence to Professor Owen' which he dismissed as well.[15]

Sea monsters were news and Owen found himself in the thick of it. In an 1877 newspaper article 'The Sea-serpent Again' the anonymous author said that because of the quality of the observers 'there is not the slightest doubt

[9] *The Times* (November 11, 1848). Also see, Richard Owen, 'The Great Sea Serpent', *Annals and Magazine of Natural History* 2nd Series vol II (1848):458-463.
[10] *Illustrated London News* (October 28, 1848):264–266.
[11] Richard Owen. *The Life of Richard Owen* (London: John Murray, 1894):334.
[12] Charles Darwin to Richard Owen. February 24, 1849, *Darwin Correspondence* (letter #1228).
[13] Quoted in Owen, *The Life of Richard Owen*, 325.
[14] *Cape Argus* 1:21 (March 14, 1857).
[15] 'The Great Sea Snake', *Land and Water* (September 21, 1872):191, and *Owen Notebook*.

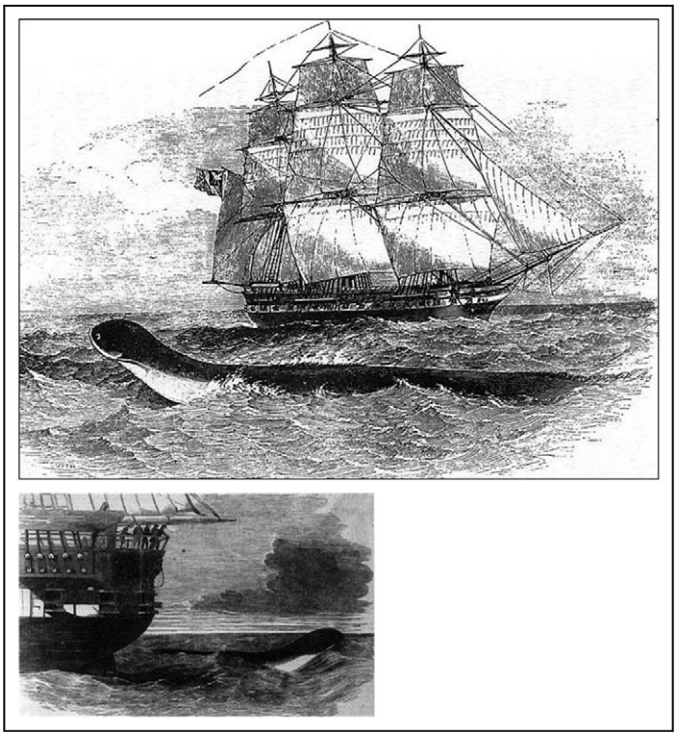

Figure 3. This drawing is from the Illustrated London News and is of the encounter at the heart of modern sea-serpent lore, that of the HMS Daedalus in 1848. Owen investigated this famous sighting and concluded the crew had seen a sea lion. His analysis helped end the long time interest in such creatures by mainstream science.

that there are monsters in the sea of various kinds yet unknown to man'.[16] Owen scribbled in the margins 'what proof of their monstrosity?'[17] He followed monster developments from America as well. When the Swamscott Monster appeared off New England in 1875 Owen wrote his thoughts in his notebook. He made an obvious observation. Stranger than the notion of a monster itself, Owen wrote, 'what is stranger still, not one of the country's ships that traverse all parts of the oceans from the equator to the PA [Polar Arctic] ice barrier, have ever come upon the floating carcass of a sea-serpent!'[18] He wanted to know why no hard evidence had turned up.

Owen biographer Nicolaas Rupke argues that Owen rejected the existence of sea-serpents as part of his wider plan to situate the physical evidence found in museums as centers of scientific authority. It had become common practice with sea-serpent sightings to hurriedly collect written eyewitness reports of the events preferably before a local magistrate, lawyer or other official government representative. This was thought an acceptable way of proving the veracity of a creature's existence. Reputable witnesses backed up by the imprimatur of law could not possibly be challenged. Owen felt this profoundly objectionable. He generally dismissed such 'evidence' in favor of physical remains, little of which was forthcoming. In 1818 the Gloucester Monster seen off the coast of Massachusetts had been established in the eyes of some naturalists by legal documents rather than physical evidence. Several naturalists in America and England accepted the creature based upon this alone.[19] Many monster incidents took this approach, but Owen wanted physical evidence confirmed by a museum based authority not the rival expertise of jurisprudence.

Just another resource

Other naturalists had an interest in sea monsters, not as objects of study, but rather as a possible source of commerce. In The Octopus: the 'Devil-Fish' of Fiction and of Fact (1875) naturalist Henry Lee thought he knew what was at the heart of sea monster sightings. They must be, he argued, the giant octopus and cuttlefish. If it was not and these organisms were something unrecognized they might be of value to the fisheries industry. In one of the most mercenary discourses on monsters, Lee worked to weed out misidentifications and folklore from genuine reports for practical reasons of identifying the commercial value of such creatures. He argued the British government should exploit sea monsters for the benefit of the empire like any other raw material.[20] Lee wrote a number of pieces on sea-serpents taking the position that even the best documented cases of sightings by respected observers were simply misidentifications of either known or only slightly known, but straightforward organisms. Lee said, 'I am convinced that while naturalists [like Owen] have been searching among the vertebrata for a solution to the problem [of sea monsters] the great unknown and therefore unrecognized, calamanes by their elongated, cylindrical bodies and peculiar mode of swimming, have played the part of the sea-serpent in many a well-authenticated incident'.[21] In a handbook written especially for the International Fisheries Exposition of 1883 he noted the case of the vessel H.M.S. Osbourne of June 2, 1877 off San Vito lo Capo, Sicily. A Royal yacht, the Osbourne was in the Mediterranean when its crew spotted a large snake-like creature in the water. Most of the officers observed it for some time through telescopes and an official report was sent to the admiralty.[22] Here too Lee said they had seen a squid and mistaken it for a monster.

The Osbourne incident wound up in the hands of Richard Owen who was sent material in June of 1877, not long after the sighting occurred. Already dubious of the notion of sea-serpents as traditional unknown monsters, Owen looked at the material with a skeptical eye. Admiral Sir George Augustus Elliot (1813–1901), the commander-in-chief of Portsmouth (where the Osbourne was stationed) sent Owen copies of the statements made by the Osbourne's commander, H.L. Pearson and several officers about the 'unknown monster' they saw. Studying the letters, Owen wrote in the margins that 'the object or phenomena may have been unknown to the observers', but they 'were not necessarily caused by a 'monster'. Unlike Lee who argued squid and octopi were the sources of sea

[16] 'The Sea-serpent Again', *Standard* (September 18, 1877).
[17] *Owen Notebook*.
[18] Ibid.
[19] For the New England sea monster see; J.P. O'neill. *The Great New England Sea-serpent* (Camden, Maine: Down East Books, 1999), and Chandos Michael Brown. 'A Natural History of the Gloucester Sea-serpent: Knowledge, Power, and the Culture of Science in antebellum America', *American Quarterly* 42:3 (September 1990):402–436.
[20] Henry Lee. *The Octopus: the 'Devil-Fish' of Fiction and of Fact* (London: Chapman & Hall, 1875).
[21] Henry Lee. *Sea Monsters Unmasked* (London: William Clowes & Sons Limited, 1883):7.
[22] A good description of the *Osbourne* sighting can be found in *Chamber's Encyclopedia: a dictionary of universal knowledge*, new edition vol. IX (Philadelphia: J.B. Lippincot, 1901):283.

monster sightings, Owen took a slightly different tack. Owen's interpretation of the creature was that the crew saw a cetacean. The descriptions, despite being given by reputable officers were 'of no value to this naturalist'.[23]

On another sighting in which witnesses said they saw a sea monster attacking a whale Owen admitted that 'my skepticism on negative grounds received a severe blow after the positive statements ex visu... before the Liverpool magistrate by the respectable captain and certain of the crew'.[24] Despite the official stamp of approval Owen was not convinced. Owen argued that the ship had come across a rare sighting of a pair of whales engaged in an amorous encounter. To this end he drew in his notebook several small cartoons – he labeled 'whale coitus' – of a pair of mating whales; their flippers entwined one below the other.[25] This unusual sight was what the observers saw. Not a titanic battle between whale and monster, but cetacean procreation. Taking to his notebook again, Owen asked about skeletal remains from the thousands of dead sea-serpents which surely would have accumulated over the years. All the magistrates in the world were not as good as a single piece of bone or fossil.

> And what to me is strangest of all, knowing that 300 or more joints may have formed the long backbone of each of the thousands of deceased individual [sea monsters] not a single vertebra has been sent for my inspection from any shore: nor can I hear of any such specimen having been forwarded to any museum...[26]

Owen felt confident he had shown sea-serpents to be merely misidentifications of other animals and that it was museum based science which deserved the credit (though Owen had no more physical evidence for his alternative theory than monster supports had for theirs). The lack of physical evidence opened the way not only for legalistic discussions, but for ones not always as serious as Owen's, but just as damaging to the creature's reputation.

Supporting Owen's position Francis Buckland (1826–1880) had an interest in sea monsters. The son of Reverend William Buckland, (who had described and named the Pterodactyl as well as the monstrous Megalosaur), Francis Buckland studied medicine at Oxford, but gave that up for natural history. Buckland had 'for many years. .taken the greatest interest in reports of so-called sea-snakes'.[27] He felt mythical sea monsters an amusing foolishness. In 1867 Buckland became inspector of British fisheries and gained access to all incoming information on sightings of sea monsters.[28] In June of 1877 Owen had been requested by Under Secretary of State, Robert Hall, to send information on the Osbourne incident to Buckland for examination.[29] Buckland too concluded sea-serpents hoaxes or simple misidentifications of whales.

In Curiosities of Natural History (1865) Buckland discussed the numerous displays and exhibitions of monsters then popular around London such as mermaids, 'nondescripts', and monster pigs. With pithy turns of phrase Buckland demeaned them all. Of a 'mermaid' he saw on Regents Street he said, 'she certainly is a curious-looking thing'. After describing it he continued that 'to anyone with the slightest pretence to knowledge of natural history' mermaids are a decided make-up'.[30] Like a number of skeptics, Buckland argued the sea-serpents were in reality known, but misidentified organisms like the Dugong, cuttlefish, squid or whale. If they were new species, he said, they should be made known and exploited for whatever benefit they could provide. 'Thus then, we practical folks of the present day no longer make a wonder of the mermen and mermaids', he said. We should 'simply harpoon them and boil them down for oil for the benefit of our patients and invalid friends and relations'.[31] Where Owen's remarks had been thoughtful and serious, now sea-monsters were an object of ridicule. By the end of the nineteenth century the once lively public discourse on sea-serpents by naturalists had all but disappeared.

Conclusion

Richard Owen helped undermine not only the reliance upon eyewitness reports to prove the existence of monsters, but serious engagement with monsters at all. He also did something he had not anticipated: he inadvertently contributed to the birth of a new field. When he referred to Owen as a sea-serpent killer, Prince Albert said more than he realized. By the end of the nineteenth century, naturalists such as Buckland, Lee, Owen and even Darwin discounted the existence of sea monsters. The last gasp of scientific support in the reality of sea monsters came in the form of Dutch zoologist A.C. Oudemans' The Great Sea-Serpent (1892).[32] Oudemans' erudite argument, backed up with an almost endless array of eyewitness reports, fell on the mainstream's deaf ears. Oudemans had no more physical evidence at the end of the century than there had been at the beginning. His book would lay dormant until rediscovered by amateur monster hunters half a century later. The abandonment by scientists of sea-serpents created a vacuum which would allow for the eventual rise of cryptozoology in the 1950s and 1960s.[33] The largely amateur and untrained practitioners who populated the field had little improved the search, however. They added blurry photographs and video footage, but still relied upon eyewitness reports. As a result they had to fight to legitimize their work to a mainstream still skeptical of eyewitness reports of monsters. They continued, whether they realized it or not, to be haunted by the case of Richard Owen and the sea-serpent.

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[23] *Owen Notebook*.
[24] Ibid.
[25] Paxton and his associates reassessed the Hans Egede sighting and concluded that oft referred to event was also a case of misidentifying a whale, possibly involved in some sexual congress. See Paxton, *Cetaceans, Sex and Sea Serpents*.
[26] Ibid.
[27] 'The Great Sea-serpent', *Land and Water* (June 2, 1877):196–198.
[28] G.H.O. Burgess. *The Curious World of Frank Buckland* (London, 1967).
[29] *Owen Notebook*.
[30] Francis Buckland. *Curiosities of Natural History* (London: 1865): 134.
[31] Ibid., p. 145.
[32] A.C. Oudemans. *The Great Sea-Serpent* (Leiden: E.J. Brill; London: Luzac & Co.: 1892).
[33] For the rise of cryptozoology see Bernard Heuvelmans, *In the Wake of the Sea-serpents* (New York: Hill and Wang, 1968), and Brian Regal, *Searching for Sasquatch: Crackpots, Eggheads, and Cryptozoology* (New York: Palgrave-Macmillan, 2011).